

Claims

1. A stencil screen assembly including the combination of:
 - a stencil screen having a desired pattern to be imprinted defined by paint pervious openings bounded by an adhered paint-impervious layer;
 - a rectangular stencil screen frame including upstanding elongated sidewalls joined by spaced apart upstanding end walls to circumscribe a screen window opening establishing a stencil screen support plane; said upstanding elongated sidewalls having sufficient resiliency to restore said stencil screen to said stencil screen support plane when displaced there from by a squeegee while traversing said desired pattern to be imprinted; and
 - screen support arms secured to said rectangular stencil screen frame to extend outwardly from said end walls.
2. The stencil screen assembly according to claim 1 wherein said upstanding elongated sidewalls have a sufficiently thin wall thickness to allow resilient torsional displacement about axes parallel to the elongated length of said upstanding elongated sidewalls.
3. The stencil screen assembly according to claim 2 wherein said upstanding elongated sidewalls are defined by L shaped cross sectional configurations having upstanding heights defining an ink reservoir volume above a projecting foot of the L shaped cross sectional configuration.
4. The stencil screen assembly according to claim 3 wherein said projecting foot defines an attachment site for adherence of said stencil screen.
5. The stencil screen assembly according to claim 1 wherein said upstanding elongated

sidewalls and upstanding end walls are defined by L shaped cross sectional configurations having upstanding heights defining an ink reservoir volume above an internally projecting foot mitered at juncture sites between each of said side walls and said end walls, said projecting foot of each of said upstanding elongated sidewalls and said upstanding end walls defining a screen mounting shelf.

6. The stencil screen assembly according to claim 5 further including an electrically insulating coating on said upstanding elongated sidewalls and said upstanding end walls to electrically insulate said rectangular stencil screen frame from said stencil screen.

7. The stencil screen assembly according to claim 6 further including an electrically insulating layer of adhesive bounding an outer marginal edge portion of said stencil screen to said mounting shelf.

8. The stencil screen assembly according to claim 6 wherein said stencil screen includes electrically conductive terminal end portions extending from said upstanding elongated sidewalls along said screen support arms and pressed into electrically conductive contact with underlying bus bars.

9. The stencil screen assembly according to claim 8 wherein said screen support arms include frame support sites spaced outwardly from elongated bus bar sites substantially correspond to the width of said stencil screen traversing said spaced apart end walls, and wherein said elongated bus bar sites define compression sites for establishing electrical conductivity with electrical bus bars.

10. The stencil screen assembly according to claim 1 wherein said screen support arms include elongated plainer arms having sufficient resiliency to allow displacement of said stencil

screen frame by a squeegee while traversing said desired pattern to be imprinted.

11. The stencil screen assembly according to claim 10 wherein said upstanding end walls are half divided and integral with said upstanding elongated sidewalls.

12. The stencil screen assembly according to claim 11 wherein said screen support arms further include mounting legs joined to structurally reinforce said end wall.

13. The stencil screen assembly according to claim 1 wherein said upstanding elongated sidewalls have sufficient resiliency to maintain preloaded stressing of said stencil screen along opposite longitudinal sides thereof.

14. A stencil screen assembly including the combination of:

a stencil screen having a desired pattern to be imprinted defined by an adhered paint-impervious layer;

a rectangular stencil screen frame including upstanding elongated sidewalls joined by spaced apart upstanding end walls to circumscribe a screen window opening establishing a stencil screen support plane; and

screen support arms secured to said rectangular stencil screen frame to extend outwardly from said end walls, said screen support arms having sufficient resiliency to restore said stencil screen to said stencil screen support plane when displaced there from by a squeegee while traversing said desired pattern to be imprinted.

15. A stencil screen assembly including the combination of:

a stencil screen having a desired pattern to be imprinted defined by an adhered paint-impervious layer, said stencil screen having sufficient strength transversely to plane of the screen to allow deflection from the plane of the screen without elastic deformation;

a stencil screen frame including upstanding elongated sidewalls joined by spaced apart upstanding end walls to circumscribe a screen window opening establishing a stencil screen support plane; and

screen support arms secured to said stencil screen frame to extend outwardly from said end walls, at least one of said upstanding elongated sidewalls and said screen support arms having sufficient resiliency to restore said stencil screen to said stencil screen support plane when displaced there from by a squeegee while traversing said desired pattern to be imprinted.